

**SX011840-A**

## Crossed roller bearing

Crossed roller bearings dimension series 18 to  
DIN 616

## Technical information

**Main Dimensions & Performance Data**

d <sub>1</sub>	200 mm	Bore Diameter
	0,004 mm	Bore diameter upper tolerance
	-0,024 mm	Bore diameter lower tolerance
D <sub>a</sub>	250 mm	Outside Diameter
	0 mm	Outside diameter upper tolerance
	-0,029 mm	Outside diameter lower tolerance
H	24 mm	Height of the assembled bearing
h <sub>i</sub>	24 mm	Height inner ring
	0,1 mm	Width upper tolerance
	-0,1 mm	Width lower tolerance
≈m	2,957 kg	Weight

**Dimensions**

D <sub>i</sub>	225,8 mm	Inner diameter outer ring
D <sub>M</sub>	225 mm	Rolling element pitch circle diameter
d <sub>a</sub>	224,2 mm	Outer diameter inner ring
h	24 mm	Height of individual ring
	0 mm	Height of individual ring upper tolerance
	-0,025 mm	Height of individual ring lower tolerance
r <sub>min</sub>	1,5 mm	Chamfer dimension
S	2 mm	Diameter of lubrication hole

**Temperature range**

$T_{\min}$	-30 °C	Operating temperature min.
$T_{\max}$	80 °C	Operating temperature max.

**Calculation factors**

	0,015 mm	Running accuracy, radial
	0,01 mm	Running accuracy, axial
$S_{r \min}$	0,005 mm	Minimum radial bearing clearance, at standard bearing clearance
$S_{r \max}$	0,025 mm	Maximum radial bearing clearance, at standard bearing clearance
$S_{k \min}$	0,01 mm	Minimum axial tilting clearance, at standard bearing clearance
$S_{k \max}$	0,05 mm	Maximum axial tilting clearance, at standard bearing clearance
$RLO_{\max}$	0,005 mm	Low clearance: Radial clearance
$RLO_{\max}$	0,01 mm	Low clearance: Preload
$VSP_{\min}$	0,005 mm	Minimum bearing preload
$VSP_{\max}$	0,025 mm	Maximum bearing preload
$C_a$	104.000 N	Basic dynamic load rating, axial
$C_{0a}$	400.000 N	Basic static load rating, axial
$C_r$	74.000 N	Basic dynamic load rating, radial (for radial load only)
$C_{0r}$	197.000 N	Basic static load rating, radial (for radial load only)
$N_{G \text{ oil}}$	680 1/min	Limiting speed for oil lubrication with normal clearance
$N_G$ Grease	340 1/min	Limiting speed for grease lubrication with normal clearance
$N_{G \text{ oil}}$	340 1/min	Limiting speed for oil lubrication with preload
$N_G$ Grease	170 1/min	Limiting speed for grease lubrication with preload
	61840	Dimensions identical to ISO dimension series 18



### Characteristics

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Radial load



Axial load in one direction



Axial load in two directions



Grease Lubrication



Oil Lubrication



Not sealed



Small design envelope